



Shenzhen JREPower Tech Co., Ltd.

# JREPower Battery Specifications

Product Name

48V 105Ah LIFEP04 BATTERY

Product Model

**JszG-LF2790**

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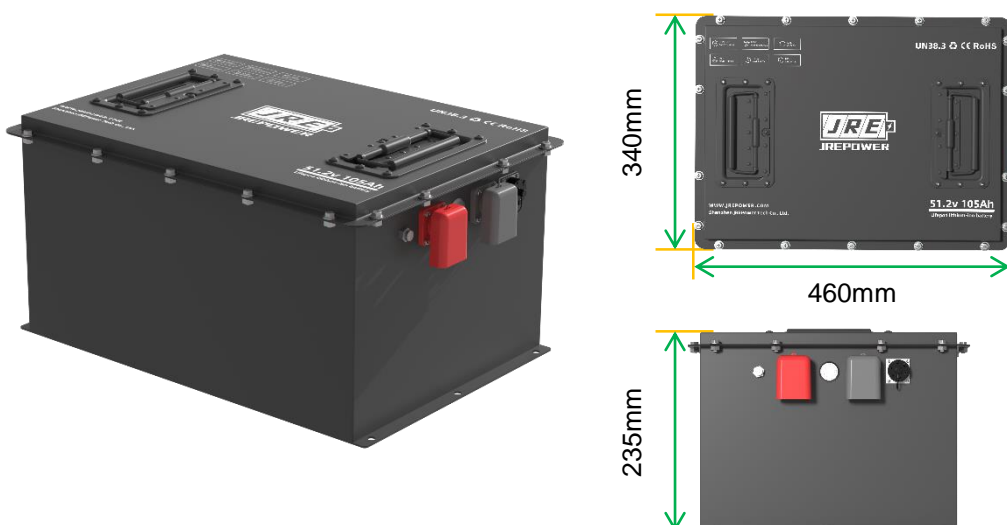
## Introduction

This product specification describes the main performance indicators of lithium-ion batteries produced by Shenzhen JREPower Tech Co., Ltd.(JREPower) Users must use them according to the application and test methods in this specification. If there are any unclear points, please negotiate with the supplier to resolve them.

## 1. Product model

### **JszG-LF2790**

## 2. Appearance and size



## 3. Product application

JszG-LF2790 48V 105Ah lithium-ion battery is one of the standard batteries produced by JREPower. It is mainly used in golf carts/tourist sightseeing cars/electric tricycles. If it needs to be used in other fields, please contact the supplier for applicability.



4. Specification

Technical Specifications	Model	JszG-LF2790
	Cell Chemistry	LiFePO4 prismatic cell
	Cell Configuration	16S1P
	Nominal Capacity(Ah)	105Ah @0.5C discharge rate
	Nominal Voltage(V)	51.2V
	Nominal Energy(Wh)	5376Wh
	Voltage Range(V)	40-58.4V
	Cycle Life	6000 cycles DOD80% 0.2C/0.5C
Charging	Standard Charge Current(A)	0.2C(CC-CV)
	Max. Charge Current(A)	105A
	Charge Condition	@ -10℃~55℃
Discharging	Standard Discharge Current(A)	0.5C(Constant current discharging)
	Max. Continuous Discharge Current(A)	200A
	Peak Discharge Current(A)	500A(≤3S)
	Discharge Condition	@ -10~60℃
Protection & Function	Safety Function	Overcharge,over-discharge,over-current and temperature protection
	Communication	Available upon requirements (UART / RS485 / CANBUS)
	Heating System(optional)	Available upon requirements
Appearance And Size	Size	460*340*235 mm 18.1*13.4*9.3 in
	Weight	46.2±3 kg 101.9±6.6 lbs
	Enclosure	Steel Case, IP65
	Terminals/Interfaces	M8 Terminal, Aviation connector
Maintenance & Storage	Maintenance	The battery pack should be fully charged every 3 months.
	Storage Condition @ -20~25℃	Can be kept for 3 months at 50% capacity
	Storage Condition @ -20~45℃	Can be kept for 1 month at 50% capacity

## 5. Standard Testing Conditions and Requirements

### 5.1 Standard Testing Conditions And Requirements

The tested battery is a new battery that has been manufactured for no more than 3 months, stored at 0-35°C and 30-50% charge, and the battery has not been charged and discharged for more than five times. Unless otherwise specified, the test conditions specified in this product specification are: temperature  $25 \pm 2^\circ\text{C}$ .

### 5.2 Measurement Equipment And Instrumentation

#### 5.2.1 Measurement Tool

Measure the size with a caliper with an accuracy of 0.1mm or a tool with higher accuracy, with a measuring range of 0~1000mm.

#### 5.2.2 Measurement Voltage

Use a voltmeter with an accuracy of 0.01V to measure the voltage, with a range of 0~100V.

#### 5.2.3 Measurement Current

Use an ammeter with an accuracy of  $\pm 1\%$  of the current to measure the current, with a range of 0~400A.

#### 5.2.4 Measurement Impedance

Measure the internal resistance using a 0 - 10m $\Omega$  ohmmeter.

## 6. Outside Appearance

Any appearance defects that may affect battery performance are not allowed, such as battery leakage, battery rust, battery deformation, component damage, serious fire, etc.

## 7. Packing/Storage/Shipment

### 7.1 Pre shipment inspection

All batteries must be checked for voltage, internal resistance and functionality of protection circuits before shipment.

### 7.2 Packing and Shipping

7.2.1 When batteries need to be retransported for assembly in the factory, pay attention to packaging to avoid stress during transportation. JREPower recommends that the same packaging used in JREPower shipping be used when reshipping. Even if the packaging is opened, when reshipped, the same parts and materials from JREPower are used for repackaging.

7.2.2 Batteries should be packed into boxes for transportation when the battery power is not less than 50%. During transportation, avoid severe vibration, impact, extrusion, sun and rain, and use vehicles, trains, ships, airplanes and other means of transportation.

### 7.3 Abnormal Condition

Do not use the battery if it is damaged due to stress during transportation, falling, short circuit or other reasons and emits an electrolyte odor.

## 8. Safety Precaution And Prohibitions

In order to prevent accidents such as leakage, heating, fire, performance reduction or life reduction of the battery, explosion, etc., please use the battery normally according to the following operation rules and follow the precautions.

### 8.1 Charging

#### 8.1.1 Charging Current

The charging current shall not exceed the maximum charging current specified in the specification. Charging with a current higher than the recommended value may cause problems with the charge-discharge performance, mechanical properties, safety of the battery, and may cause heating or leakage.

#### 8.1.2 Charging Voltage

The charging voltage must not exceed the maximum value of the voltage range. The charger design should meet this condition. When the battery voltage is higher than the maximum value of the voltage range, it may cause problems with the battery's charging and discharging performance, mechanical properties and safety performance, and may cause heating, leakage or explosion.

#### 8.1.3 Charging Temperature

The battery must be charged in an ambient temperature range of  $-10^{\circ}\text{C}$ ~ $55^{\circ}\text{C}$ .

#### 8.1.4 Reverse Charging Is Prohibited

Connect the positive and negative poles of the battery correctly, and reverse charging is strictly prohibited. If the positive and negative poles of the battery are connected in reverse, the battery cannot be charged. At the same time, reverse charging will reduce the battery's charging and discharging performance and safety, and may cause heating, leakage or explosion.

### 8.2 Discharging

#### 8.2.1 Discharging Current

The discharge current must not exceed the maximum discharge current in this specification. Large current discharge will cause a sharp drop in battery capacity and lead to overheating.

### 8.2.2 Discharging Temperature

The battery must be discharged within the ambient temperature range of  $-10^{\circ}\text{C}\sim 60^{\circ}\text{C}$ .

It should be noted that when the battery is not used for a long time, it may be in a state of over-discharge due to other self-discharge characteristics. To prevent over-discharge, the battery should be charged regularly to maintain its voltage within the operating voltage range. Over-discharge will lead to loss of battery performance and battery function.

### 8.3 Exception Handling

If the battery is damaged, deformed, leaking electrolyte, or smells of electrolyte, or other abnormal phenomena occur, please do not use the battery again; in addition, batteries with leaking electrolyte should be kept away from fire sources, and the batteries should be punctured and immersed in water to avoid explosion.

## 9. Storage

### 9.1 Storage Temperature And Humidity

The battery should be stored in a clean, dry, and ventilated room with an ambient temperature range of  $0^{\circ}\text{C}\sim 35^{\circ}\text{C}$  and a relative humidity of  $0\%\sim 75\%$ . Avoid contact with corrosive substances and keep away from fire and heat sources.

### 9.2 Long Time Storage

If the battery is to be stored for a long time, it should be stored in a temperature range of  $0^{\circ}\text{C}\sim 35^{\circ}\text{C}$ , relative humidity of  $0\%\sim 75\%$  and in a non-corrosive gas environment. If it exceeds three months, the battery should be fully charged and discharged once, and then stored under the condition that the battery is charged to 50%.

## 10. Guarantee Period of Quality

After the battery leaves the factory, if there are any quality problems with the product due to manufacturing or process factors, and non-human damage (such as abnormal use/negligent damage/unauthorized disassembly, etc.) or force majeure factors (such as natural disasters/abnormal social events, etc.), JREPower can replace the battery with a new one free of charge within 2 years and provide warranty service for the battery within 5 years.



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